

**STATE OF ILLINOIS**  
**ILLINOIS COMMERCE COMMISSION**

<b>Commonwealth Edison Company</b>	<b>:</b>	<b>ICC Docket No. 07-0566</b>
	<b>:</b>	
<b>Proposed General Increase in Rates.</b>	<b>:</b>	

**REBUTTAL TESTIMONY**  
**OF**

**EDWARD C. BODMER**

**ON BEHALF OF THE CITY OF CHICAGO**

**APRIL 8, 2008**

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**REBUTTAL TESTIMONY OF EDWARD C. BODMER**

**I. INTRODUCTION AND QUALIFICATIONS**

**Q. What is your name and business address?**

A. My name is Edward C. Bodmer. My business address is 5951 Oakwood Dr., Lisle, Illinois 60532.

**Q. Did you present direct testimony on behalf of the City of Chicago in this case?**

A. Yes. My qualifications were presented in my direct testimony.

**II. GENERAL REACTION TO COMED REBUTTAL**

**Q. What was your general reaction upon reading the rebuttal testimony of Commonwealth Edison Company's ("ComEd" or the "Company") witnesses?**

A. ComEd's rate design witnesses make a number of surprising statements. They claim that: (1) low customer charges create needle peaking (ComEd Ex. 32.0, lines 481-89); (2) low income is not correlated with low usage (ComEd Ex. 32.0, lines 562-87); (3) cost of service issues were fully resolved in prior rate cases

(ComEd Ex. 33.0, lines 28-30); (4) rate comparisons should be made only between proposed rates in this distribution rate case and those set in Docket 05-0597, ComEd's last distribution rate case (ComEd Ex. 32.0, lines 433-44); (5) ratepayers who live large penthouses would benefit from lower customer charges and higher energy charges (ComEd Ex. 32.0, lines 415-18); and (6) population density is not higher in the City than in the suburbs (ComEd Ex. 32.0, lines 624-26). These assertions reminded me of a concept named the "firehouse effect" discussed by Nassim Taleb in his book "Fooled by Randomness." Taleb describes situations in which people can make themselves believe preposterous myths through telling stories to one another within an organization without discussing those ideas with the outside world. He explains this phenomenon as follows:

Veteran trader Marty O'Connell calls this the firehouse effect. He had observed that firemen with much downtime to talk to each other for too long come to agree on many things that an outside, impartial observer, would find ludicrous (they develop political ideas that are very similar). Psychologists give it a fancier name, but my friend Marty has no training in clinical psychology....<sup>1</sup>

**Q. Will you address why ComEd's rate design assertions are like the "ludicrous" notions discussed in the above quote?**

**A.** Yes, at the end of this rebuttal testimony. Instead of beginning with ComEd's broad generalizations, which ultimately will have little to do with the Commission's resolution of the issues in this case, I start by addressing some of the more detailed and clear-cut issues, such as allocation of customer installation costs, customer information costs, uncollectible accounts and requiring that ComEd's cost-of-service study properly reflect underground, density and other

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<sup>1</sup> Taleb, Nasim, *Fooled by Randomness*, 2001, Texere LLC, New York, 2001.

relevant cost characteristics. After addressing these issues, I move to cost of service issues involving data management costs, street lighting, allocation of service drops and use of the average and peak ("A&P") method for allocating distribution demand costs. Next, I respond to ComEd's critiques of my recommendations regarding regional surcharges to cover the very high unit cost of installing new equipment. Toward the end of my rebuttal testimony, I comment on the "firehouse effect" quality of the sweeping rate design propositions discussed by ComEd's witnesses.

**III. CUSTOMER INSTALLATION COSTS**

**Q. Summarize your position on customer installation expenses and ComEd's response.**

A. In my direct testimony, I observed that ComEd's cost study invariably resolves any ambiguities with respect to the allocation of installation costs, customer information costs, uncollectible costs, density factors, and the allocation of distribution investments using the approach least favorable to low-income, low-use residential ratepayers. This conforms to ComEd's standard approach to resolving any uncertainty in cost allocation in a manner that invariably favors business over residential consumers, large over small residential customers, new over old ratepayers, and high-income over low-income customers. In the case of customer installation expenses, in my direct testimony I observed that since installation costs are caused by migrating ratepayers, cost allocation principles dictate that the costs be allocated to customers who have migrated to newly constructed homes – the actual cost causers. I demonstrated that ComEd's customer installation costs grew on a percentage basis more than any other cost since ComEd's last rate case because of ratepayers who have chosen to migrate from higher- to lower-density suburban and exurban areas. I also noted that

ComEd did not include installation costs in the marginal cost-of-service studies the utility submitted in prior cases, which implies that for decades, the Company implicitly allocated those costs primarily on the basis of energy and demand. I recommended that the most reasonable allocation of these costs is on the basis of energy use, since the magnitude of the costs depends on the size of the new ratepayers.

ComEd witness Heintz responded to my testimony as follows :

With respect to Customer Installation - Other costs, Mr. Bodmer argues that these should be directly assigned to new customers, but concedes that ComEd does not have a provision for charging these costs to such customers. (See City Ex. 1.0, 67:1221-22). Given this, Mr. Bodmer proposes that these costs be allocated on the basis of energy sales across all customer classes, which he claims is a 'second best alternative.' (Id., 67: 1225-28). Mr. Bodmer offers absolutely no empirical support for the notion that an energy allocation among classes in any way relates to cost causation. Indeed, the claim that his proposal is a 'second best' alternative (and, thus, better than ComEd's allocation) is a fiction.

(ComEd Ex. 33.0, lines 232-40).

**Q. How do you interpret Mr. Heintz's statement that your proposed allocation is a "fiction?"**

**A.** It is in step with many of ComEd's other responses with respect to cost of service and rate design. The utility's logic (such as it is) can be summarized as follows:

1. We admit we are wrong in principle;
2. We do not have the data to improve our analysis; and
3. Therefore, our original position is correct.

ComEd makes similar illogical arguments with respect to allocation of secondary wire, auditing of customer accounts, accounting for density and undergrounding in

cost allocation and other customer cost issues. These statements confirm the crudeness and bias of ComEd's cost study, which, in cases of uncertainty, allocates costs in the most regressive manner possible. If the Commission were to follow ComEd's logic, there would be no reason to conduct rate cases. If ComEd stated that its revenue requirements have gone up, but there is no data to support the increased revenue requirements, the Commission would simply accept ComEd's position and there would be no reason to consider alternative positions.

**Q. In terms of customer information costs, how does ComEd apply the logic you have described?**

**A. In three steps:**

1. We do not disagree that ComEd's allocation is wrong (note that, in the above statement, Mr. Heintz does not disagree that installation costs should be allocated to new customers);
2. We do not have the data to correct the allocation (Mr. Heintz states that ComEd does not have billing determinants for new customers); and
3. Therefore, ComEd's allocation is correct and alternative allocation proposals are a "fiction." (Mr. Heintz does not explain why ComEd's regressive allocation of customer installation costs is superior to my recommended allocation).

To accept ComEd's method of allocating customer installation costs would be to endorse the nonsense of ComEd's logic.

**Q. With respect to customer installation costs, in your direct testimony did you explain why your approach is superior to ComEd's regressive method?**

143 A. Yes. Contrary to Mr. Heintz's unsupported and reactionary criticism of my  
144 testimony, rather than simply stating that ComEd's allocation is illogical and  
145 unfair, I explained that my proposed allocation is superior because it properly  
146 allocates costs to cost causers, given that larger ratepayers with higher demands  
147 and more equipment needs cause ComEd to incur higher installation costs than  
148 smaller ratepayers. To account for the relationship between size and cost, it is  
149 much more reasonable to allocate these costs on the basis of energy sales across  
150 all customer classes. (One does not need a fancy empirical study to prove this.) I  
151 also showed that customer installation costs should be classified as facility costs  
152 rather than customer costs in the cost-of-service study. As a rate design matter,  
153 customer installation charges should be classified as energy charges for residential  
154 ratepayers rather than customer charges.

155  
156 **IV. CUSTOMER INFORMATION COSTS**

157 **Q. Summarize your position on customer information expenses and ComEd's**  
158 **response.**

159 A. In my direct testimony, I pointed out that much of the customer information  
160 expense is associated with ComEd customer account representatives and  
161 advertising. I then observed that it is implausible that a customer account  
162 representative would visit residential customers, particularly low-use, low-income  
163 customers, and that a ratepayer who uses minimal electricity does not benefit from  
164 ComEd advertising. In other words, within the residential class, it is inappropriate  
165 to allocate the same share of customer information costs to a low-use customer as  
166 a high-use customer. As with customer installation costs, I showed that my  
167 recommendation to allocate customer information expenses on the basis of energy  
168 usage is consistent with the approach ComEd used in the era of marginal cost  
169 studies, as customer information cost was not considered a marginal cost. Finally,



as with customer installation costs, I demonstrated that customer information expenses should be classified as facility costs because the magnitude of such costs is proportional to use.

Mr. Heintz responded that my testimony rests on “inaccurate descriptions of the costs included in this [embedded cost-of-service study (“ECOSS”)] subfunction,” that reflect insufficient attention to ComEd's testimony on the subject. (ComEd Ex. 33.0, lines 267-70). Mr. Heintz added:

Specifically, [Mr. Bodmer] stated that ‘ComEd's cost-of-service study allocates customer information expenses using the number of customer in each customer class.’ This ignores that the allocator for these costs is a weighted number of customers where the weights reflect an analysis of the costs incurred in providing services to residential and non-residential groups. The non-residential weights are four times the residential weights.

(ComEd Ex. 33.0, lines 270-75).

**Q. How do you respond?**

A. Mr. Heintz – either accidentally or intentionally – misses the point of my testimony. I discussed the *intra-class* allocation of customer information costs within the residential class. Instead, Mr. Heintz merely confirms that customer information costs are indeed split between residential and non-residential ratepayers and then allocated within each class based on the number of customers. In light of Mr. Heintz's comments, my rebuttal discussion on this subject addresses two separate issues:

1. How should customer information costs be allocated within customer classes – that is, how should costs be allocated to

residential ratepayers once the residential class's share of the total cost amount is established?

2. How should customer information expenses be allocated among customer classes?

**Q. Does Mr. Heintz's rebuttal testimony address the issue of intraclass allocation of customer information costs (i.e., allocation of costs within the residential class)?**

**A.** No. Mr. Heintz only discussed the allocation of such between the residential and non-residential classes. For low-use residential ratepayers (and low-use business customers), the intra-class allocation of costs is more important than their inter-class allocation. The table below, taken from ComEd's ECOSS (ComEd Ex. 13.1), illustrates that if the intra-class allocation of customer information expenses was based on sales rather than number of customers (leaving the inter-class allocation unchanged), the allocation to the multi-family class would decline by more than 50%.

Effects of Alternative Intra-Class Allocation of Customer Information Costs								
	Customer Information Costs Allocated in ComEd ECOSS	Customers	Sales	ComEd Info Cost Per Customer	Customer Info Cost per kWh Sale	Sales Percent	With Intra Class Allocation Using Sales	Percent Change in Allocation
Total Residential Non Space	8,094,434.1	3,396,715.0	28,286,957,804	2.38	0.0002862	100%	8,094,434.12	0.00%
Single Family Non Space	5,614,743.8	2,224,785.0	21,387,196,569	2.52	0.0002625	76%	6,120,037.90	9.00%
Multi Family Non Space	2,479,690.3	982,552.0	4,318,599,079	2.52	0.0005742	15%	1,235,785.62	-50.16%

Mr. Heintz completely ignores the most crucial -- and the most straightforward -- point with respect to customer information costs: if residential customers use more electricity, they benefit more from the customer information expenses incurred by ComEd.

**Q. Please comment on Mr. Heintz's statement that "non-residential weights are four times the residential weights."**

**A.** Mr. Heintz did not explain the basis for his assertion that non-residential weights are four times the residential weights. However, simply tabulating the customer information costs in ComEd's cost-of-service study reveals that the overwhelming share of such costs is allocated to residential ratepayers. This is illustrated in the table below, which shows that ComEd allocates 71% of customer information costs to residential customers even though only 31% of sales are attributable to those customers.

<b>Interclass Allocation of Customer Information Costs</b>				
	Allocated Customer Information in ECOSS	Percent of Customer Information	Percent of Ratepayers	Percent of Energy Sales
Residential	8,572,372.0	70.8%	90.6%	31.1%
Non-Residential	3,499,709.0	28.9%	9.3%	67.7%
Lighting and Railroads	41,177.1	0.3%	0.1%	1.2%
<b>Total</b>	<b>12,113,258.0</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Q. In proposing your alternative allocation of customer information expenses, did you realize that ComEd made some adjustments in allocating its customer information cost?**

**A.** Yes, I did read the testimony of ComEd witnesses Mr. Alongi and Ms. Jones on the subject (ComEd Ex. 12.0, lines 486-98). As shown in the above table, the costs are nonetheless allocated overwhelmingly to residential ratepayers. More important, Mr. Heintz did not explain the significant of his assertion that non-residential weights are four times the residential weights. However, when one considers the overall result of ComEd's analysis, this claim simply does not make sense.

**Q. Please comment on ComEd's discussion of how it allocates customer information costs.**

**A.** ComEd's rebuttal testimony makes it seem as though one could find in the testimony the basis ComEd uses to allocate costs and examples of why certain costs are excluded and others are not excluded. Instead, ComEd provides the following table (ComEd Ex. 12.20, p. 6):

Customer information costs are costs recorded in Accounts 907 through 910:

Account	Amount in 2006 <sup>(1)</sup>	Excluded CARE Program Costs <sup>(2)</sup>	Amount in 2006 Excluding CARE Program Cost	Residential Only <sup>(3)</sup>	Nonresidential Only <sup>(4)</sup>	Residential and Nonresidential <sup>(5)</sup>
907	\$0	\$0	\$0	\$0	\$0	\$0
908	\$11,144,189	\$1,745,185	\$7,798,904	\$2,451,901	\$2,108,539	\$5,238,469
909	\$4,854,601	\$4,241,501	\$612,800	\$0	\$0	\$612,800
910	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$16,398,790	\$7,987,686	\$8,411,704	\$2,451,901 (C)	\$2,108,539 (D)	\$3,851,263 (E)

Notes:

- (1) These lighting accounts are customers for lighting services only and do not include lighting accounts that also take electric services.
- (2) The customers in the Railroad class use electricity for traction power.
- (3) From CIMS, ComEd's billing system.
- (4) ComEd FERC Form No. 1 for 2006, page 323.
- (5) Schedule WPC-1d attached to ComEd Exhibit 7.9.
- (6) Determined from detailed 2006 costs information recorded in Accounts 908 and 909 in ComEd's general ledger.
- (7) Determined from allocating residential only costs in (C) to residential delivery classes, nonresidential only costs in (D) to nonresidential delivery classes, and residential and nonresidential costs in (E) to all delivery classes.
- (8) Used in ComEd Exhibit 13.1, Schedule 2b, Line 43, Pages 3 of 4 and 4 of 4.

October 17, 2007

I am not certain what this table is supposed to show, but it provides no useful information as to how ComEd allocates customer information costs.

**V. UNCOLLECTIBLE EXPENSES**

**Q. Summarize your position on uncollectible expenses and ComEd's response in rebuttal testimony.**

**A.** In my direct testimony, I did not take issue with the accuracy of ComEd's determinations of how many unpaid bills there were within each customer class. I realized that ComEd allocated uncollectible expenses to residential sub-classes (i.e., the multi-family and single-family classes). Rather, my position was -- and is -- that properly allocating uncollectible accounts would, in theory, impose costs on customers who do not pay their bills -- the cost causers. Since, however, it is

impossible to impose costs on customers who do not pay their bills, an alternative approach must be used. ComEd's method may be accurate, but it accurately computes something irrelevant. As I stated in direct testimony, taken to its extreme, ComEd's practice of allocating uncollectible expenses to customers with similar characteristics as consumers who do not pay their bills would dictate that ComEd's entire uncollectible expenses be allocated to only a handful of low-income ratepayers who cannot afford to pay ComEd rates. Given that uncollectible expenses cannot be imposed on non-paying ratepayers, I recommended that ComEd resort to the reasonable alternative of first computing uncollectible expenses as a percentage of revenues separately for all residential ratepayers as a group and all non-residential customers as a group, and then multiplying the total uncollectible expense ratios by the resulting revenue levels.

In response, Mr. Heintz stated that I give "an inaccurate picture of how uncollectible allocation is performed," and proceeds to explain his detailed allocation procedure. He concludes that there is "absolutely no basis for" my alternative recommendation, adding, "It's not clear how this recommendation differs from what ComEd is already doing." (ComEd Ex. 33.0, lines 241-63).

**Q. Is your proposed method for allocating uncollectible expenses different from ComEd's?**

**A.** Yes, my proposal is very different. It is inequitable to impose higher costs on a low-income ratepayer than a wealthy ratepayer if the neighbor of the low-income ratepayer did not pay his bill. Therefore, I propose computing the ratio of uncollectible expenses for the entire residential class and then making the allocation rather than making the computation by sub-class. ComEd either misunderstood or purposefully ignored this recommendation.

296

297 **VI. RESIDENTIAL DISTRIBUTION COSTS**

298 **Q. Much of your direct testimony discussed how ComEd's cost-of-service study**  
 299 **should be modified with respect to the residential class to more accurately**  
 300 **reflect cost of service by taking into account density, overhead and under-**  
 301 **grounding of equipment and age-of-equipment characteristics. How did**  
 302 **ComEd respond to this part of your testimony?**

303 **A.** ComEd witness Heintz briefly commented on my adjustment, and witnesses  
 304 Alongi and Jones criticized my approach in general terms.

305

306 **Q. Summarize your direct testimony explaining how costs for the residential**  
 307 **class should be modified to more accurately reflect cost of service.**

308 **A.** I stated that ComEd's cost-of-service study should explicitly account for density  
 309 characteristics and the cost per mile of underground and overhead equipment by  
 310 correlating customer groups with regional characteristics within ComEd's service  
 311 territory. I offered a detailed analysis that incorporates differential density, under-  
 312 grounding and cost characteristics and showed that making such modifications  
 313 would reduce overall multi-family costs by 14% and increase single-family costs  
 314 by 4%. I also provided an analysis of transformer costs that accounts for age  
 315 differences. Its failure to take account of density, overhead versus underground,  
 316 age and other factors is the main reason ComEd's embedded cost-of-service study  
 317 is "a great leap backwards" from prior studies. I explained that ComEd's ECOSS  
 318 is a blunt instrument that allocates costs on a plain-vanilla basis, without  
 319 considering density, the number of underground versus overhead lines,  
 320 transformers per customer, required substations per region or other essential cost  
 321 differences.

322

323 **Q. Did your adjustment to reflect density imply that rates should be**  
324 **differentiated on a regional basis?**

325 A. No. I testified that the allocation of costs in ComEd's embedded cost-of-service  
326 study should be revised to reflect a number of different cost-related factors as well  
327 as the size of each customer class's non-coincident peak load. The factors that  
328 affect cost of service include the percentage of overhead and underground lines,  
329 density of equipment in terms of miles of wire per customer, transformers per  
330 customer and substations per customer. In making these adjustments, I proposed  
331 maintaining the same inter-class cost allocation between residential and non-  
332 residential classes and focusing solely on the residential non-space heat intra-class  
333 allocation. My adjustment for density is distinct from my proposal to impose a  
334 regional surcharge driven by the high unit cost of new equipment.

335  
336 **Q. What comments did Mr. Heintz make regarding your adjustments involving**  
337 **density, overhead and other factors?**

338 A. Mr. Heintz appears to suggest that I made my density and under-grounding  
339 adjustment to advocate regionally differentiated rates, stating:

340  
341 Whether the Commission wishes to incorporate into  
342 rates cost differentials of providing distribution  
343 service to city residents and non-city residents is a  
344 policy issue. ComEd does not recommend that the  
345 Commission mandate that ComEd conduct the  
346 extensive studies and analyses necessary to support  
347 such differentials in future rate filings. Mr.  
348 Bodmer's differential analyses are largely  
349 conjectural, and clearly do not reflect actual cost  
350 differences incurred by ComEd.

351 (ComEd Ex. 33.0, lines 155-60).

**Q. Did you discuss accounting for density and other cost-related characteristics to advocate for regionally differentiated rates, as Mr. Heintz implies?**

A. No. Apparently, some clarification is in order. To avoid further confusion (or obfuscation), I restate my recommendations below.

1. Separate from my proposal that the Commission require ComEd to establish regional rates, I recommend that ComEd take account of differential density, the extent of undergrounding of lines and other factors that affect cost of service in allocating costs among the single-family and multi-family subclasses in the residential class. (As the Company did in its marginal cost-of-service studies). Again, this proposal stands alone and is not affected by my proposal to establish regional rates. Although City and outside-City statistics can be used as a proxy to derive the relative costs of serving multi-family and single-family customers, doing so does not suggest that regionally differentiated rates should be established.
2. Because of the prodigious per unit cost of new equipment, the Commission should examine policy alternatives that do not impose those high unit costs on ratepayers in older, more densely populated areas such as ratepayers who live in existing apartment buildings in Chicago. My recommendation is to impose a surcharge on a regionally differentiated basis. That recommendation is independent of my comments on ComEd's cost-of-service study.
3. In the future, ComEd should compute embedded cost of service on a regionally differentiated basis that separates the City central business district from other areas of the service territory. This does not necessarily imply that rates should be regionally differentiated; it means that better information would be available in developing an appropriate rate design.



380 **Q. Did your testimony explicitly state that regional differences in density and**  
 381 **other factors were used to estimate multi-family and single-family costs?**

382 A. Yes. Consider that in my direct testimony, I was asked, "Can you use a simple  
 383 hypothetical example to demonstrate how regional data can be used in adjusting  
 384 allocation factors?" (City Ex. 1.0, lines 919-28). Additionally, I testified that "I  
 385 have simply used the City of Chicago density as representative for all multi-family  
 386 consumers." (City Ex. 1.0, lines 977-78). When I presented the density and  
 387 underground-versus-overhead analysis, I explicitly presented the equations using  
 388 "SF" and "MF" to signify the single-family and multi-family factors.

389  
 390 **Q. Did ComEd deny that its embedded cost study ignores differences in density,**  
 391 **undergrounding, age and other factors?**

392 A. No. In response to City Data Request COC 1.12, ComEd admitted that these  
 393 factors are not accounted for in the ECOSS. Nor did the Company deny this fact  
 394 in its rebuttal testimony.

395  
 396 **Q. Did ComEd dispute the general notion of making adjustments in a cost-of-**  
 397 **service study to account for factors such as density, undergrounding and age**  
 398 **of equipment?**

399 A. No.

400  
 401 **Q. Has ComEd proposed a better way to compute the differential distribution**  
 402 **costs between single-family and multi-family residential ratepayers?**

403 A. No.

404  
 405 **Q. Is Mr. Heintz's description of your analysis of cost differences attributable to**  
 406 **density and other factors as "conjectural" appropriate?**

407 A. No. It is particularly inappropriate given the lack of data ComEd has provided in  
 408 response to data requests. Unlike Mr. Heintz, I do not have access to relevant data  
 409 that only ComEd would have, but had to write numerous data requests to retrieve  
 410 data, most of which ComEd refused to answer substantively. Nonetheless, I made  
 411 a serious effort using the available data to compute relative distribution costs. By  
 412 contrast, ComEd simply assumed that all lines, poles, substations and other  
 413 equipment can simply be allocated according to relative load. It is ComEd's  
 414 unsupported assumption that is wholly conjectural.

415

416 **Q. How did Mr. Alongi and Ms. Jones respond to your adjustments involving**  
 417 **density, undergrounding and other cost factors?**

418 A. They maintain that my direct testimony

419

420 is overly simplistic and may or may not be true  
 421 depending upon the situation. The provision of  
 422 electric service to customers involves far more than  
 423 spans of wire. Costs to provide service in high  
 424 density areas are often significantly higher than they  
 425 are in lower density areas. For example, in certain  
 426 high density areas of the City, overhead spans are  
 427 not even an option and underground service must be  
 428 provided, which can be a more expensive  
 429 alternative.

430 (ComEd Ex. 32.0, lines 291-96).

431

432 **Q. Did you account for underground-versus-overhead wire when you**  
 433 **performed the distribution cost analysis?**

434 A. Yes. The ComEd team apparently did not pay much attention to the details of my  
 435 direct testimony, in which I clearly accounted for cost differences based on the  
 436 amount of underground versus overhead wire. ComEd provided data in response  
 437 to data requests indicating that in the City of Chicago, only 17% of residential

ratepayers are served by underground facilities while the comparable number is 50% outside the City. The formulas for making allocations shown below were explicitly laid out in my testimony clearly included the percentage of underground and overhead wire:

$$\begin{aligned} \text{MF Cost} &= \text{MF Miles/Load} \times \text{Overhead Cost/Mile} \times \text{Percent Overhead} \\ &\text{Plus} \\ &\text{MF Miles/Load} \times \text{Underground Cost/Mile} \times \text{Percent Underground} \end{aligned}$$

**Q. Did you attempt to use data so as to account for other factors other than density and underground versus overhead wire when you were performing your residential distribution cost analysis?**

**A.** Yes, but as I stated in direct testimony, my requests for data from ComEd were continually rebuffed. I predicted that after refusing to provide relevant data, ComEd might complain that my cost of service adjustments lacked supporting detail. As I stated in direct testimony, “[i]t would be the height of hypocrisy if ComEd complains that our recommendations cannot be adopted because they are not based on appropriate data after the company has been so unhelpful in providing the missing data.” (City Ex. 1.0, lines 614-17). Unfortunately, that is exactly what ComEd did in the rebuttal testimony of Mr. Alongi and Ms. Jones.

**Q. Elaborate on what cost drivers other than density and underground versus overhead should be considered in a cost-of-service study.**

**A.** As I stated in my direct testimony, other factors affecting cost of service could be included in the analysis of the actual cost of serving different types of ratepayers, including the age of equipment, requirements for tree-trimming, land cost, whether underground cable requires conduit and the distinct costs of serving

different regions. Ideally, the cost of serving apartment buildings near Chicago's central business district would be separated from the cost of serving other apartment buildings and single-family dwellings, and the cost of serving new duplexes in the suburbs should be distinguished from the cost of serving other apartment buildings.

**Q. Given ComEd's testimony, what information is available to the Commission for determining the proper method of allocating distribution costs between single-family and multi-family ratepayers in the residential class?**

A. ComEd would have the Commission rely on the ECOSS, which makes no attempt whatsoever to account for the significant cost differential factors I have identified. Alternatively, the Commission could adopt the adjustments I advocate, which imply that multi-family costs are 14% lower than single-family costs; or it could reach some sort of compromise between my position and ComEd's. In resolving this issue, the Commission should bear in mind certain cost-related considerations that ComEd's cost-of-service study ignores entirely: a typical multi-family ratepayer in the City is served from an overhead wire in an alley; the lines were in all likelihood installed decades ago; the span of wire is much less than that for suburban single family homes; and tree-trimming expenses are much less than such expenses for a wealthy suburban community. In light of these significant, cost-affecting factors, ComEd's cost allocation approach is the least acceptable alternative. Fairness dictates that the Commission avoid imposing on the multi-family class further rate increases that do not reflect the class's actual cost of service.

**VII. STREET LIGHTING COST-OF-SERVICE ANALYSIS**

**Q. What did you recommend in direct testimony with respect to street lighting rates, and how did ComEd respond?**

A. In my direct testimony, I explained that given the unique aspects of street lights such as City ownership of many utility poles and secondary wire, ComEd's ECOSSE does not accurately represent the actual cost ComEd incurs to serve street lighting customers. I concluded that the deficiencies in ComEd's cost study with respect to street lighting customers cannot be cured by making minor modifications, and, therefore, that ComEd should be required to conduct an audit.

ComEd fought my recommendation – and the recommendations of other witnesses – that the Company conduct an audit, complaining that it would be expensive and more or less impossible. In particular, Mr. Heintz testified that “[t]he recommendations by several witnesses that ComEd conduct detailed and potentially expensive ‘audits’ for the purpose of directly assigning distribution facilities to selected classes should be denied.” (ComEd Ex. 33.0, lines 31-33). Mr. Alongi and Ms. Jones stated that:

ComEd does not record its costs to provide distribution-related services in a manner that would enable it to directly assign the investment costs, incurred to serve these customers, which start at customers' meters and extend all the way through ComEd's system to the transmission substation. The same is true for the operating and maintenance expenses that ComEd incurs. . . . ‘To allocate the costs of service to the ComEd delivery classes, general allocators are appropriate and generally the only practical method of performing a rate class cost-of-service study.’

(ComEd Ex. 32.0, lines 261-65; 276-78).

521 **Q. Has ComEd's rebuttal testimony persuaded you to change your**  
522 **recommendation with respect to street lighting rates?**

523 A. No, for the reasons discussed below. First, contrary to Mr. Alongi and Ms.  
524 Jones's rebuttal testimony, it is possible to conduct an audit. Second, I comment  
525 on the similarity between the City street lighting class and the other over 10 MW  
526 classes. Third, I explain that ComEd's cost analysis for street lighting service is  
527 biased because of the manner in which ComEd computes non-coincident load.  
528 Finally, I address some general issues relating to how the actual cost of serving  
529 large ratepayers should be determined.

530  
531 **Q. Is it possible to conduct an audit of street lighting accounts?**

532 A. Yes. ComEd's witnesses have testified that the audit cannot be performed  
533 because one cannot count specific equipment associated with street lighting. The  
534 real question, however, is whether an audit, which would without doubt require  
535 some assumptions, would be more useful to the Commission in setting rates than  
536 ComEd's current crude approach to determining cost of service, which contains  
537 obvious errors with respect to secondary wire and other components of the  
538 distribution system, and which allocates poles, underground wire and other  
539 equipment to the class according to non-coincident load. It is possible to estimate  
540 the actual costs of serving street lighting customers through surveys of equipment  
541 at selected locations and to determine actual costs by measuring the age of  
542 equipment. Mr. Alongi and Ms. Jones's rebuttal panel testimony that "general  
543 allocators are appropriate and generally the only practical method of performing a  
544 rate class cost-of-service study" is belied by ComEd's reliance over many years on  
545 marginal cost of service analysis, in which typical ratepayer profiles were used to  
546 compute cost of service.

**Q. Mr. Alongi and Ms. Jones claim that the configuration of the street lighting class is complex (ComEd Ex. 32.0, lines 283-86). How does the complexity of equipment affect your recommendation to conduct an audit?**

A. Mr. Alongi and Ms. Jones testified that, "Mr. Bodmer's underlying assumption that the City owns all the poles and secondary lines for its dusk to dawn street lighting system is wrong. Mr. Bodmer ignores the fact that thousands of City street lights are mounted on thousands of ComEd poles and are served by many miles of ComEd secondary lines throughout the City's alleys." The complexity of the class in terms of configuration and ownership of equipment makes the need for an audit even more compelling.

In addition, while Mr. Alongi and Ms. Jones may be correct regarding alley lights in the City, the City owns the poles and secondary wire for lights along Chicago's streets. In response to a ComEd discovery request, the City explained that "[t]he City has approximately 193,434 lighting fixtures on 180,611 City-owned poles. The City has approximately 62,230 lighting fixtures on either ComEd-owned or ComEd/at&t owned poles." City Supplemental Response to ComEd 3.06.

**Q. Elaborate on how ComEd could compute the cost of actual equipment used to serve the City street lighting class.**

A. In conducting an audit, one would have to first select representative points at which City street lights connect to the ComEd system. For various connection points, the specific equipment used to serve the street lights would be tabulated along with an allocation of the additional primary distribution lines and other equipment used to serve street lights as well as other ratepayers. The cost of such common equipment would be computed by determining the additional equipment that is necessary to serve the street lighting load. The age of the various facilities

would be estimated in order to determine the net book value of the equipment. Finally, a reasonable allocation of overall operation and maintenance expense would be determined that considers specific expenses associated with street lights as well as the span of wire used to serve the street lights and the type of equipment (i.e., underground versus overhead lines.)

**Q. Is the City's street lighting account similar to other above 10 MW accounts?**

A. Yes, there are a number of similarities, and, therefore, policies and settlements applied to the 10 MW class should also be applied to City street lights. First, City street lights use more than 10 MW per month. Second, under bundled rates, City street lights took service under the same rate class as other above 10 MW customers. Third, the street lights have experienced dramatic distribution rate increases – greater than 100% -- in moving from the MCOSS to the ECOSS. Fourth, the City, rather than ComEd, owns street lighting poles and secondary wire; that is also the case for high-voltage ratepayers for this type of equipment.

**Q. Explain why an audit would remove the bias created by ComEd's method of computing non-coincident peak load.**

A. ComEd computes non-coincident peak load by summing the hourly loads of all the ratepayers in a class and then computing the maximum of the summed loads. This severely penalizes classes such as the street lighting class and other classes with few ratepayers and similar loads because of the lack of diversity within the class. Consider, for example, the position of the street lighting class compared to the 401-1,000 kW class. Every ratepayer in the street lighting (dusk to dawn) class has virtually an identical load profile, while ratepayers in other classes have diverse profiles. For example, assume there are two ratepayers in the large business customer class, one which peaks at 8:00 AM with 5,000 MW and the



other which peaks at 6:00 PM with 5,000 MW. Further assume that the non-peak load is only 2,000 MW for both ratepayers. In this case, the class will have a non-coincident peak load of 7,000 MW and it will pay for distribution lines and other costs on the basis of the 7,000 MW non-coincident peak. Now assume there are two street light customers in the dusk to dawn class and each peaks at the same time with 5,000 MW of load. In the latter case, the peak load and allocation of distribution equipment would be 10,000 MW -- much more than the 7,000 MW of the customer class that has diversity. The lack of diversity in classes such as the street lighting class and the railroad class does not mean that they use more distribution equipment; it is just a consequence of the crudeness of ComEd's embedded cost-of-service study.

To illustrate the bias of the ECOSS, assume that ComEd created a class for City-related facilities that included the CTA and the street lights. The CTA typically peaks at around 8:00 AM, and the street lights peak at various times in the evening depending on the season. Accordingly, if those customers were included in the same class, the class's non-coincident peak would not increase significantly. Assuming the two classes have about the same load, combining the classes would cut the class's cost allocation in half. Given this aberration, which occurs with classes that have few ratepayers, in such cases, the only reasonable approach is for ComEd to compute actual costs of service.

**Q. Does ComEd object to computing particularized costs for individual ratepayers?**

**A.** Yes. In my direct testimony on behalf of REACT (REACT Ex. 2.0), of which the City is a member, I discussed the benefits of computing particularized costs of

service for large ratepayers. All of the points I made with respect to above 10 MW ratepayers apply equally well to the City street lighting cost of service.

**VIII. SERVICE DROPS**

**Q. What was your direct testimony with respect to service drops and what was ComEd's response?**

A. My testimony was that the cost of service drops within the residential class is likely to be correlated with ratepayer size. If high-use ratepayers cause ComEd to incur a higher cost for service drops, it would make sense to impose this cost item on a basis that reflects usage rather on the basis of the number of customers in a class (because it is classified as a customer cost). For example, if a bungalow in the City has a short overhead service drop served from an alley whereas a typical suburban home has a much longer, in many cases underground, service drop, the bungalow's rates should reflect the lower associated cost.

Mr. Alongi and Ms. Jones objected that my "concern about more wire or cable being provided for service drops at homes with spacious backyards or underground facilities is misplaced" because I did not reflect the "standard electric service provisions." They added that "ComEd provides up to 150 feet of overhead wire in areas with overhead distribution or up to 100 feet of direct buried underground cable," and concluded that "[b]ecause service drops are provided in accordance with these standards the costs for service drops are reasonably classified as customer costs." (ComEd Ex. 32.0, lines 315-24).

**Q. Does this testimony invalidate your recommendation with respect to service drops?**

655 A. No. The fact that there is a cap on the length of service lines does not invalidate  
656 the relationship between service drops and size unless all ratepayers take the  
657 maximum length of wire. While I have not used a tape measure to confirm that  
658 service drops for a bungalow and a suburban home are not the same length, if both  
659 are less than 150 feet long, my observation that there is a positive correlation  
660 between length (and cost) of service drops and the size of the ratepayer. Finally,  
661 Mr. Alongi and Ms. Jones presume that ComEd consistently charges ratepayers to  
662 meet their non-standard requirements -- a presumption that seems inconsistent  
663 with ComEd's collections for contributions in aid of construction that I discussed  
664 in my direct testimony.

665  
666  
667 **IX. BILLING COMPUTATION AND DATA MANAGEMENT**

668 **Q. Did ComEd disagree with your recommendation regarding allocation of**  
669 **billing computation and data management costs in the cost-of-service study?**

670 A. They most certainly did. I attributed an additional 20% of the total cost in this  
671 category to non-residential ratepayers and, in the residential class, allocated 50%  
672 of the cost on the basis of energy rather than number of customers. In response,  
673 Mr. Heintz maintained that I did not adequately review ComEd's responses to  
674 data requests and I did not understand that ComEd already is properly allocating  
675 costs to non-residential ratepayers. (ComEd Ex. 33.0, lines 205-20).

676  
677 **Q. How do you respond to Mr. Heintz's implication that ComEd has provided**  
678 **substantive responses to data requests regarding customer information**  
679 **costs?**

680 A. Mr. Heintz's rebuttal testimony makes it seem as though it is simple to follow  
681 exactly how ComEd used its accounting data to classify expenses allocated to the  
682 Billing – Computation and Data Management category and between residential  
683 and non- residential ratepayers in that category. This is not the case. In  
684 discussing Billing – Computation and Data Management, the direct testimony of  
685 Mr. Alongi and Ms. Jones states:

Billing-Acct is the allocator for costs in the Billing - Computation & Data Mang. sub-  
function in the ECOSS. The primary costs for this sub-function are costs recorded in  
USOA 903 and functionalized into this sub-function. We reviewed these costs and  
determined that the costs for ESO and for the System Billing departments are appropriate  
to be assigned to delivery classes based on the time those departments spend to provide  
services to customers by delivery class and that other costs in USOA 903 and costs in  
USOA 901 are appropriate to be assigned to delivery classes based on the number of  
customers in the delivery classes. The weighting factors are then prepared based on the  
resulting average per customer costs by delivery class. The determination of the  
weighting factors is provided in ComEd Ex. 12.20, and the resulting weighting factor is  
shown in line 57, Schedule 2b of the ECOSS.

686

687 (ComEd Ex. 12.0, lines 465-75)

688

689 I have examined Exhibit 12.20 and the workpapers provided in response to IIEC  
690 Data Request 1.07. Despite Mr. Alongi and Ms. Jones's assurances, none of these  
691 documents provides any information as to how ComEd mapped expenses in  
692 account 903 to the Billing – Computation and Data Management category.

693

694 Q. Does Mr. Heintz address the issue of whether costs in this category should be  
695 allocated on the basis of number of customers within the residential class?

696 A. No. His remark that services in the Billing – Computation and Data Management  
697 category are “provided to all retail customers -- those taking supply service from  
698 ComEd as well as Retail Electric Suppliers” implies that costs in that category  
699 that are not clearly attributable to non-residential customers should be allocated  
700 based on the number of customers. This default approach is precisely the problem  
701 with ComEd’s allocation of expenses such as those in account 903: it allocates  
702 expenses that are “provided to all customers” on the basis of the number of  
703 customers. This approach gives no consideration whatsoever to whether the  
704 expenses are related to the size of the ratepayer in terms of the level of energy  
705 usage. If an expense ComEd incurs varies with use, the principle of charging  
706 costs to cost causers dictates that the expense be allocated based on a factor that  
707 also varies with the size of the ratepayer. As stated above in my discussion of  
708 customer information costs, ComEd’s rebuttal testimony entirely ignores the most  
709 important issue from the perspective of multi-family and low-use ratepayers:  
710 whether some costs should be allocated on the basis of factors other than the  
711 number of customers within the residential class.

712  
713 **Q. Mr. Heintz refers to ComEd response to City Data Request 4.112, which he**  
714 **states “details the components of this ECOSS subfunction” and states that**  
715 **the subfunction “include such activities as billing, call center operations,**  
716 **account management, and credit, which are services provided to all retail**  
717 **customers-those taking supply service from CornEd as well as Retail Electric**  
718 **Suppliers.” Does the referenced data request response provide a transparent**

**account of how ComEd allocated billing and data management costs to residential and non-residential ratepayers?**

A. Not at all. The data request response discusses in very general terms the business activities that are included in different accounts. Although the response refers to responses to IIEC data requests for a discussion of the allocation of bill processing and metering, it does not do so with respect to costs in the Billing – Computation and Data Management category. Thus, ComEd’s response to the data request does not clarify the manner in which specific costs were allocated to the Billing – Computation and Data Management account, and whether these costs might be related to ratepayer size (usage). The excerpt from the data response replicated below illustrates the paucity of information ComEd actually provided in response to the City’s data request:

In ComEd’s ECOSS, the billing costs are included in the “Billing – Comp. & Data Mang.” and the “Bill Issue & Processing” subfunctions and the costs for revenue management, customer contact center, and customer relations are included in the “Billing – Comp. & Data Mang.” subfunction. The total embedded cost for “Billing – Comp. & Data Mang.” is \$177,804,047, listed at line 198 under the row heading “Billing – Comp. & Data Mang.” and column heading “Total ICC” on page 11 of Schedule 2a of ComEd Exhibit 13.1. The total embedded cost for “Bill Issue & Processing” is \$26,056,431, listed at lines 199 under the row heading “Bill Issue & Processing” and column heading “Total ICC” on page 11 of Schedule 2a of ComEd Exhibit 13.1.

In addition, an analysis of account 903 for direct expenses functionalized to the “Bill Issue & Processing” subfunction is provided in ComEd’s response to IIEC 1.07\_Attach 9. IIEC 1.07\_Attach 9 also provides the direct expenses of (3) through (6) included in account 903 under various organizations. The costs for billing are recorded under the organization: [01493] Billing – WEST, the costs for revenue management are recorded under the organization: [01492] Credit – West, the costs for customer contact center are recorded under the organizations: [01450] System Call Center Manager, [01451] Oak Brook Call Center, and [01452] Chicago Reg Call Center, and the costs for customer relations are recorded under the organizations: [01461] Customer Relations West and [01496] Project & Support West.

**Q. Is it straightforward to determine whether a particular expense in account 903 (the primary FERC account used in the Billing – Computation and Data**

**Management category) contains business functions that are related to ratepayer size?**

A. No. According to ComEd responses to IIEC data requests, the account includes expenses such as Post 2006 Transition Expenses, Post 2006 Rate Case Expense, Customer Service and Marketing, ComEd O&M Training, Safety and Industrial Hygiene, Relay and Protection Engineering, Distribution Facilities Services, Vegetation Management, Investigate Billing Exceptions, Cut Outs for Non Payment, Manage Inactive Accounts, Implement Open Access Legislation, Planned Outage Notification, Periodic Exchanges, Field Services, Call Center Management, Capacity Planning, Field Service – Primary Meter and many others. It can certainly be argued that these ComEd expenses are higher for ratepayers with higher energy use. Even costs of the call center are likely to be higher for ratepayers with higher use, as such ratepayers are more likely to need to call ComEd about digging in areas near underground wire, fallen tree branches and so forth.

**Q. If an expense item cannot clearly be defined as being related to size or energy use, should the expense be allocated based on the number of ratepayers?**

A. No. ComEd's method of defaulting to allocation based on the number of ratepayers is not only regressive, but also is biased against low-income ratepayers. Thus, it is imperative that the Commission take appropriate steps to halt ComEd's default approach of allocating costs based on the number of customers, without regard for any correlation between the magnitude of the cost and customer size.

760

761 **Q. How did ComEd split costs in the “Billing – Computation and Data**  
762 **Management” category between residential and non-residential ratepayers?**

763 A. ComEd appears to have allocated the costs based on the number of bills reviewed  
764 for residential and non-residential ratepayers. (ComEd Ex. 12.20, page 5). Yet,  
765 out of a total \$178 million in Billing – Computation and Data Management costs,  
766 only \$499,000 are related to reviewing bills. (ComEd Ex. 12.20 at 5). No other  
767 costs are allocated between residential and non-residential ratepayers in ComEd  
768 Ex. 12.20; all the rest are simply allocated regressively based on the number of  
769 ratepayers.

770

771 **Q. Comment on how computation of the Single Bill Option credit relates to the**  
772 **costs that should be allocated in the “Billing – Computation and Data**  
773 **Management” category.**

774 A. In measuring the true costs of preparing a bill for purposes of developing the  
775 billing credit, ComEd calculates a credit of only \$0.54 per year (ComEd Ex. 12.4)  
776 – a tiny fraction of all of the billing costs allocated on the basis of the number of  
777 customers. It is not reasonable to assume, as ComEd does, that all of these costs  
778 that are not related to true billing costs are attributable to the number of customers  
779 and not related in any way to ratepayer size.

780

781 **Q. Are there other examples of expenses that ComEd does not allocate**  
782 **transparently?**



A. Yes: rate case expenses, for one. Rate case expenses should not be allocated disproportionately to low-income, low-use customers, which occurs when such costs are classified as customer costs. As with other costs, ComEd's submission should identify how much of total rate case expenses is allocated to multi-family customers and how much is allocated to single-family customers. In response to the question of what portion of such expenses is allocated to multi-family and single-family customers, ComEd supplied only the following almost incomprehensible statement:

(d) Rate Case Expenditures for 2006 are booked to Account 928, the total of which is \$8.7 million. Of this, \$2 million are directly assigned to the Transmission function and the remainder are distributed to all Distribution and Customer subfunctions by the "REGCOM" function factor. (ComEd Ex. 33.1, Sch. 1a, line 196). This function factor, except for the direct assignment to Transmission, is a labor allocator. The percentages distributed to each of the subfunctions are shown on ComEd Ex. 33.1, Sch. 1b, line 240. In addition, a pro-forma adjustment of \$3.8 million is made to Regulatory Commission Expense (included in the total at ComEd Ex. 33.1, Sch. 1a, line 207). This pro-forma adjustment is functionalized by the "L-TOTAL" factor; the percentages to each subfunction are shown on ComEd Ex. 33.1, Sch. 1b, line 210).

(e) Using the Regulatory Commission Expense values and allocations to subfunctions identified in part (d), above, the amounts of such expense included in O&M for each subfunction on ComEd Ex. 33.1, Sch. 2a, lines 2-14 can be calculated. The distribution to each class of the regulatory commission expense component of each subfunction's O&M can then be calculated by using the appropriate allocation factor percentage shares shown on ComEd Ex. 33.1, Sch. 2b.

**Q. Is ComEd's rebuttal testimony regarding the allocation of billing and data management expenditures persuasive?**

A. No. Although ComEd complains that my proposed allocation is arbitrary, examining the data in the accounts themselves makes clear that it is the Company's allocation methods that are arbitrary as well as unfair to low-use/low-income ratepayers.

**X. REGIONAL SURCHARGE AND COMED'S HIGH COST OF NEW EQUIPMENT**

**Q. Review the basis for your recommendation for a regional surcharge due to the high unit cost of new distribution equipment and ComEd's response.**

A. In my direct testimony, I observed that there is no sound basis for imposing the cost of serving new ratepayers in sprawling suburban areas -- the driver behind ComEd's proposed rate increase -- on ratepayers who have not chosen to migrate to newly constructed homes in remote locales. I proposed an alternative approach: develop a regional surcharge to avoid recovering such costs from ratepayers who did not cause ComEd to incur the costs.

ComEd disagreed with my recommendation and, more important, made no attempt to develop a creative solution to the inequity of collecting the high costs of installing equipment to serve new customers from existing ratepayers who have not chosen to relocate to rapidly expanding suburbs. In particular, Mr. Alongi and Ms. Jones stated: "[b]ased upon historical data, approximately 26% of ComEd's customers' kWh usage is attributable to customers inside the City. The same is true for ComEd's investments costs -- approximately 26% is expended for facilities inside the City." (ComEd Ex. 32.0, lines 386-89). In addition, Mr. Heintz characterized my recommendation as raising a "policy issue" that the Commission would be well-advised to avoid. (ComEd Ex. 155-56).

824 **Q. How do you respond to Mr. Heintz's characterization of your**  
825 **recommendation as raising a "policy issue?"**

826 A. His comment makes me scratch my head. I was under the impression that a  
827 primary role of the Commission is to develop appropriate rate design policy.  
828 Apparently, Mr. Heintz believes the Commission's role is simply to approve  
829 ComEd's cost-of service-study without any debate. But Mr. Heintz's odd  
830 comment does not assist the Commission in making a key decision squarely  
831 presented in this case: whether consumers in older portions of ComEd's service  
832 territory should pay the astronomical unit costs of new equipment because of  
833 choices made by other ratepayers to migrate to far-flung suburbs and exurbs.

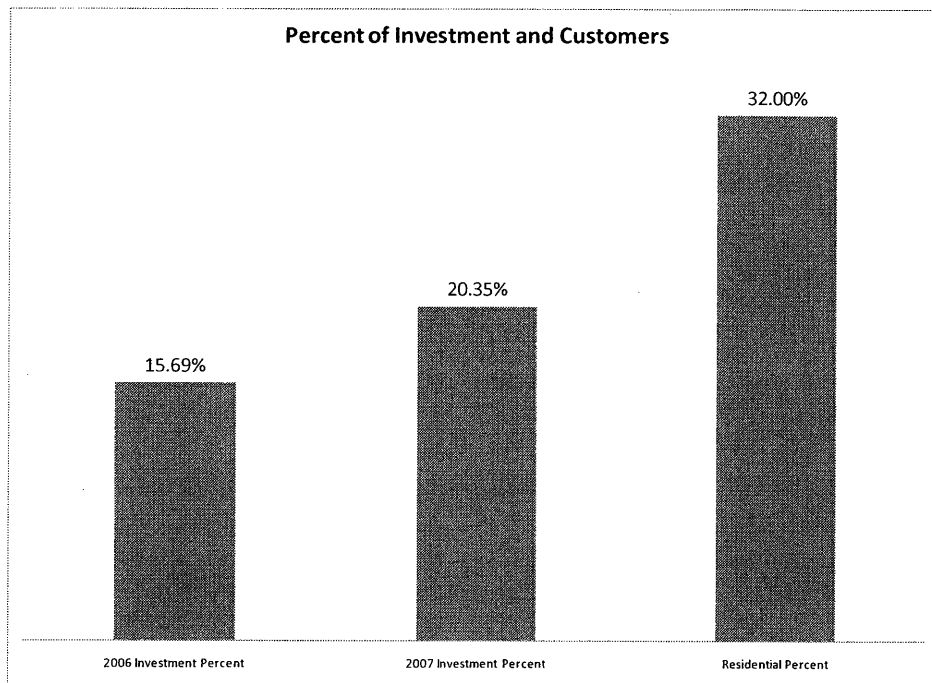
834

835 **Q. Discuss the regional investment data presented by ComEd witnesses Mr.**  
836 **Alongi and Ms. Jones.**

837 A. ComEd presented data on investments inside the City and outside the City from  
838 2001 through 2007. They also presented the level of energy sales inside the City  
839 and outside the City, asserting that investment in outside-City areas is not  
840 disproportionate to sales. (ComEd Ex. 32.0, lines 389-98). The chart below  
841 compares the proportion of ComEd's expenditures in the City and the number of  
842 residential customers in the City. This data shows that in the past two years,  
843 although there has been some investment in the City, it has been much less than  
844 ComEd's investment in outside-City areas.

845

846



Some have proposed that taxies impose surcharges in response to the run-up in oil prices. ComEd's plain-vanilla proposal is analogous to taxi drivers imposing rising oil prices on people who never take a taxi.

**Q. In the above chart, which years are most relevant to whether a regional surcharge should be imposed?**

**A.** The whole point of my recommendation to adopt a regional surcharge is the high cost per unit of new equipment caused by ratepayers who choose to move to sprawling, high-growth suburbs. Had the unit cost of equipment remained about the same over the past few years, there would have been no justification for a regional surcharge because the higher equipment costs would largely have been offset by increased energy sales, leaving the position of existing ratepayers

unchanged. Given that, according to ComEd, the spikes in unit costs have occurred in the past couple of years, that is the period on which the Commission should focus. The data displayed in the above chart imply that in the years when unit costs have dramatically increased, the preponderance of ComEd's investment in distribution equipment has been incurred to serve ratepayers outside the City.

**Q. Comment on ComEd's presentation of the relative investment data and data requests that you made in preparing your direct testimony.**

A. In preparing my direct testimony, I was anxious to find the regional location of the expenditures made by ComEd relative to the regional peak load. As I stated in my direct testimony, however, ComEd provided virtually no data on a regional basis even though ComEd's direct case repeatedly made the point that the Company's proposed 20% rate increase is driven mostly by costs incurred to serve ratepayers in far-collar counties. Needless to say, it is dismaying that ComEd refused to provide relevant data in response to data requests but then presented the information in rebuttal testimony.

**Q. Did ComEd present an alternative to your regional surcharge recommendation or to traditional average-cost ratemaking in response to drastic increases in the unit cost of new equipment?**

A. No. ComEd went to obvious lengths to criticize my alternative approach, but made no effort of its own to develop an alternative approach to standard rate design and failed to address the underlying issue.

884

885 **Q. Do you wish to change your recommendation with respect to regional**  
 886 **surcharges in light of ComEd's rebuttal testimony?**

887 A. No. ComEd has offered no reason to abandon my contention that traditional  
 888 ratemaking is wholly inadequate in this instance. There are a host of other  
 889 reasonable alternatives including the regional surcharge I recommend, but ComEd  
 890 apparently considered none of them.

891

892

893 **XI. AVERAGE AND PEAK ALLOCATION**

894

895 **Q. What was your position in your direct testimony with respect to the Average**  
 896 **and Peak allocation approach and what was ComEd's response?**

897 A. I testified that the Commission should reconsider alternatives to ComEd's Non-  
 898 Coincident Peak method for allocating distribution costs, including the A&P  
 899 allocation method. ComEd's preferred method assumes that all investment and  
 900 operating decisions would be precisely the same if the Company had built its  
 901 system to distribute electricity for only one hour of the year rather than throughout  
 902 the year. Moreover, I noted that the Commission has consistently applied the  
 903 A&P method in the rate cases of (natural gas) local distribution utilities for some  
 904 time.

905

906 In response, Mr. Heintz did not discuss the merits or the theoretical underpinnings  
 907 of the A&P method. Instead, he simply noted that the A&P and minimum

distribution system allocators “generally cancel each other in their effects on the ECOSSE, and this is an appropriate result.” (ComEd Ex. 33.0, lines 295-96). Even assuming for purposes of argument that this is the case, it is not a basis for rejecting the A&P method, which more closely reflects cost causation on ComEd’s system than the utility’s allocation approach.

**Q. What is the logic behind Mr. Heintz’s critique of your proposal to implement an Average and Peak allocation approach?**

**A.** Mr. Heintz’s logic seems to be that:

1. All allocation methods are crude (including ComEd’s approach and the alternative methods proposed by IIEC and the City).
2. Therefore, the Commission should adopt ComEd’s approach.

This poor syllogism is hardly a reasoned basis for resolving this allocation issue.

## **XII. COMED AND THE “FIREHOUSE EFFECT”**

**Q. What subjects do you address in this section of your testimony?**

**A.** As I mentioned at the beginning of my rebuttal testimony, ComEd made a number of surprising statements in rebuttal testimony that suggest that the Company’s witnesses may be suffering from the “firehouse effect.” These statements touched on issues such as the relationship between income and energy use, needle peaking,

931 population density, the Company's prior rate cases and rate comparisons. Many  
932 such statements are so preposterous that they merit no response. Nonetheless, to  
933 provide some much-needed perspective, I will make some brief comments.

934  
935  
936 **Q. Please comment on Mr. Alongi and Ms. Jones's statement regarding your**  
937 **recommendations for allocating customer-related costs that, "[s]uch**  
938 **inappropriate pricing can lead to an undesirable situation in which**  
939 **customers exhibit inappropriate usage behaviors, such as refraining from**  
940 **using air conditioning until the heat is unbearable, which results in needle-**  
941 **like peak demands for electricity. At the extreme, needle peaking forces more**  
942 **investment in facilities to meet the peak demand, thereby causing the price to**  
943 **increase further and leading to even more pronounced needle peaking."**

944 **(ComEd Ex. 32.0, lines 483-89)**

945 **A.** I have not heard ComEd raise the specter of "needle peaking" for more than a  
946 decade. ComEd has used this argument in the past to defeat demand-side  
947 management programs, inverted block rates and other energy-conservation  
948 measures. Nobody took the argument seriously then, and nobody should take it  
949 seriously now.

950  
951 Moreover, the suggestion that it would be inappropriate for customers to use less  
952 energy is inconsistent with energy legislation enacted by the General Assembly  
953 last year. That legislation requires ComEd and the other electric utilities in



Illinois to invest in energy-efficiency and demand-response programs to meet prescribed cuts in electricity usage and demand. It is my understanding that ComEd personnel have worked extremely hard and that the utility has expended significant funds in an ardent effort to comply with the statutory requirements. Perhaps Mr. Alongi and Ms. Jones should speak to the persons at ComEd engaged in the utility's energy efficiency and demand response efforts to gauge their response to the witnesses' needle-peaking argument.

**Q. Please comment on the statement made by Mr. Alongi and Ms. Jones that, "under Mr. Bodmer's proposal, a residential customer living in an expensive penthouse and using large quantities of electricity in an extremely inefficient manner will get the same reduced customer charge as a low income, low use, and/or efficient customer." (ComEd Ex. 32.0, lines 415-18)**

**A.** The only possible point of this statement by ComEd is to confuse the Commission. It is obvious to anyone with a rudimentary knowledge of rate design that tariff issues are revenue-neutral. If customer charges are lowered, the reduced revenues from the customer charges must be made up by higher energy charges. The higher energy charges would cause ComEd's hypothetical high-use ratepayer living in a penthouse to experience a higher bill.

**Q. Please comment on Mr. Alongi and Ms. Jones's statement that, "in accordance with the Public Utilities Act, charges for electricity service should be set in a manner that reflects the cost to serve to the extent possible," and**

**their implication that your rate design proposals are not cost-based. (ComEd Ex. 32.0, lines 420-21).**

A. Apparently, Mr. Alongi and Ms. Jones would like to leave an impression that I advocate socialized ratemaking that would subsidize low-use/low-income ratepayers. That is a mischaracterization, however; every recommendation I made was founded on the bedrock principle of recovering costs from the cost causers -- and no one else. This includes my direct testimony that even if my customer cost recommendations are rejected, the monthly customer charge should nonetheless be set at \$3 per customer because low-use ratepayers have relevant characteristics that reduce ComEd's distribution costs, such as higher density, older plant and less undergrounding. Because the cost of serving low-use ratepayers is lower, reducing the customer charge can move rates closer to cost.

I compared ComEd's customer charges to those of other utilities simply to show that, even though other commissions may take account of non-cost considerations in setting the customer charge, ComEd's customer charge is highly regressive compared to other utilities' customer charges. Something is out of line.

**Q. Please comment on Mr. Alongi and Ms. Jones's assertion that: "it is also correct that for many areas inside the City, including many areas in which residential customers reside, the density levels are indistinguishable from the density levels of neighboring suburbs. Moreover, there are certain areas well outside the City, but within ComEd's service territory, that also have high**

**density levels with respect to population or electricity demand.” (ComEd Ex. 32.0, lines 622-26).**

A. The witnesses cite no data supporting these assertions. As I stated in my direct testimony and reiterate in this testimony, ComEd has refused to provide relevant, objective data in response to numerous data requests from the City. Developing an appropriate rate design is difficult for an intevenor when ComEd controls the data; refuses to provide the data; and then makes unsupported statements such as that population density is lower in the City than outside of the City.

To the extent Mr. Alongi and Ms. Jones intended to suggest that one cannot differentiate the City of Chicago from older suburbs such as Oak Park in terms of density, they have completely misunderstood my direct testimony. I used City boundaries as a proxy to compute the lower cost of service for multi-family ratepayers, not to imply that multi-family rates should be differentiated for ratepayers in the City and ratepayers in Oak Park. Furthermore, I proposed a regional surcharge based on county boundaries rather than City boundaries, which would account for many mature suburbs near the City that have housing stock similar to that in Chicago.

**Q. Please comment on Mr. Alongi and Ms. Jones’s testimony that due to “restrictions on time of work and necessary equipment, the costs of serving high density areas, such as those inside the City, can at times be the highest.” (ComEd Ex. 32.0, lines 496-98).**

1023 A. This is precisely the kind of myth I described in the introduction to this testimony.  
 1024 The City could create its own myth by claiming that it is as expensive to trim trees  
 1025 inside the City as trimming trees in the suburbs. Moreover, whatever the costs of  
 1026 construction in the City, the chart in Section X, above (Regional Surcharge and  
 1027 ComEd's High Cost of New Equipment) shows that ComEd invested less in the  
 1028 City in the past two years, the relevant time period for my regional surcharge  
 1029 proposal.

1030

1031 Additionally, knowing that ComEd maintains much of its cost data and operations  
 1032 by region (there are two regions in the City and about half a dozen regions outside  
 1033 of the City), we attempted to objectively tackle the regional cost question with  
 1034 actual data. As stated above, ComEd rebuffed our attempts at every turn.

1035

1036 **Q. Comment on the statement made in Mr. Alongi and Ms. Jones's panel**  
 1037 **testimony regarding the relationship between income and usage. Is their**  
 1038 **analysis credible?**

1039 A. Not at all. The ComEd panel witnesses stated that it is a

1040 misconception that low income customers are low  
 1041 electricity use customers.... statistics show that low income  
 1042 customers are not necessarily low usage customers.  
 1043 Moreover, low usage customers are not necessarily low  
 1044 income customers. Therefore, the foundation for Mr.  
 1045 Bodmer's proposal is not sound.

1046

1047 (ComEd Ex. 32.0, lines 404-09).

1048

ComEd's "analysis" is based on the electricity use of LIHEAP consumers who have received energy assistance. (See ComEd Ex. 32.0, lines 578-87.)

ComEd's analysis is so utterly biased that it provides no information at all. LIHEAP is a voluntary program (mainly for natural gas usage) in which consumers must apply for assistance. (LIHEAP ratepayers constitute only about 12% of the total number of City ratepayers.) If low-income consumers use very little electricity, they obviously have less incentive to participate in the LIHEAP program. Because of this self-selection bias, the sub-group of low income consumers who participate in LIHEAP will certainly be the low-income consumers with the highest use.

Objective studies of the relationship between income and electricity demand confirm that there is a strong correlation between income and usage. I have worked on many demand studies and never observed a negative or insignificant coefficient on the income variable (a positive coefficient means that electricity demand rises with income).

**Q. Discuss ComEd's statements that your rate comparisons are inappropriate.**

A. Mr. Alongi and Ms. Jones testify that "the \$3.68/month charge set in 1995 at the conclusion of Docket No. 94-0065 was not cost based because it was not based upon the marginal cost-of-service study or the embedded cost-of-service study filed in that rate case." (ComEd Ex. 32.0, lines 442-44). This statement is

erroneous, for a number of reasons. First, ComEd did not file an embedded cost study in Docket No. 94-0065. Second, there was a lively debate in the case regarding the status of low-use ratepayers. I presented testimony that ComEd's declining block rate was not cost-based and ComEd's own inappropriate cost study demonstrated that low-use ratepayers recovered a higher proportion of marginal cost than other residential ratepayers. The customer charge established in that case resulted from examining all the rate components and there was no suggestion that low-use ratepayers were recovering less than other ratepayers relative to their marginal cost. ComEd's description of the the history of the case is a distortion.

**Q. ComEd witness Heintz states that "[t]he classification and allocation of customer-related expenses ... has been examined in detail in past ComEd proceedings." (ComEd Ex. 33.0, lines 27-30). Do you agree with his recollection of earlier cases?**

**A.** No. As with Docket No. 94-0065, ComEd mischaracterizes the analysis of customer cost components in earlier cases. There have been two cases in which ComEd's cost study has been used -- in 2001 and in 2005. In ComEd's 2001 rate case, the City argued that ComEd's allocation did not appropriately reflect the costs for residential and non-residential ratepayers. The Commission concluded that "the Company's use of traditional allocations of customer related expenses are of concern and should be reviewed in future filings." *In re ComEd*, ICC Docket No. 01-0423, Interim Order at 129 (Apr. 1, 2002). In the 2005 case, no

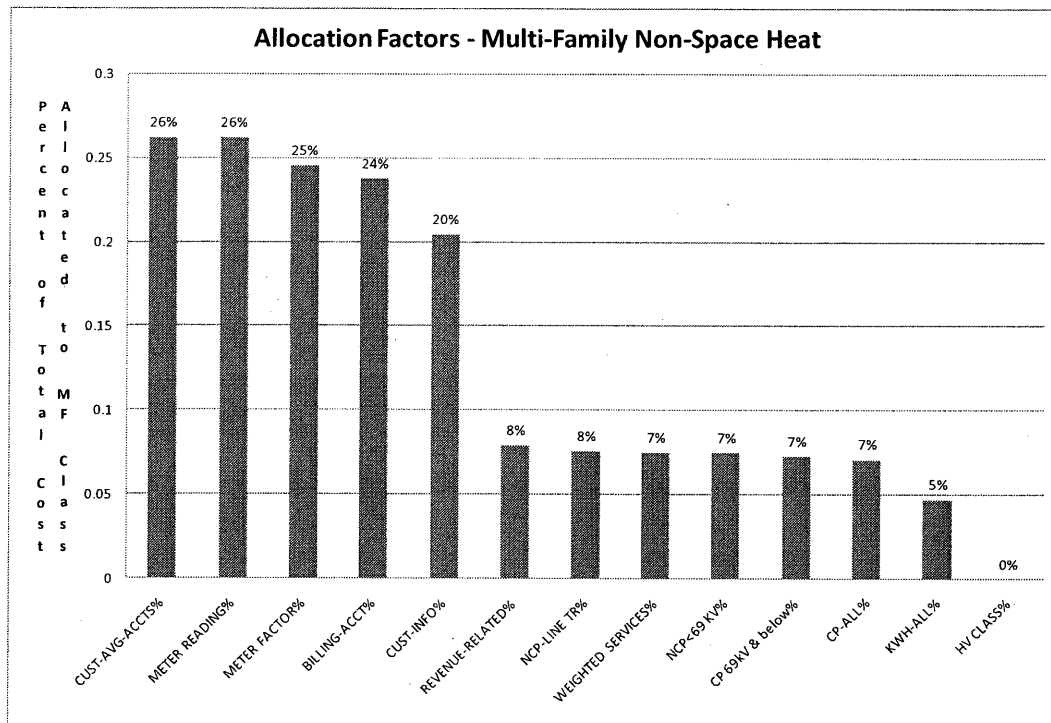
1095 witness addressed customer cost issues from the perspective of residential  
1096 customers.

1097

1098 **Q. Comment on Mr. Heintz's testimony that customer costs are not allocated**  
1099 **based on the number of customers. (ComEd Ex. 33.0, lines 167-69)**

1100 A. Mr. Heintz takes my statement that ComEd that the ECOSS simply attributes  
1101 "costs that are not obviously associated with demand to the number of customers"  
1102 completely out of context. I understand that the allocation factor for customer  
1103 costs in the ECOSS is not exactly the number of ratepayers; my criticism was  
1104 more general. Indeed, the chart below illustrates that customer costs are  
1105 primarily derived from the number of ratepayers, resulting in a sudden jump in  
1106 allocation factors. The jump is attributable to the fact that the allocation of costs  
1107 to multi-family customers is dramatically higher when the allocation is derived  
1108 from the number of customers rather than the amount of non-coincident peak.  
1109 Despite Mr. Heintz's assurances, ComEd's allocation of such costs is regressive.

1110

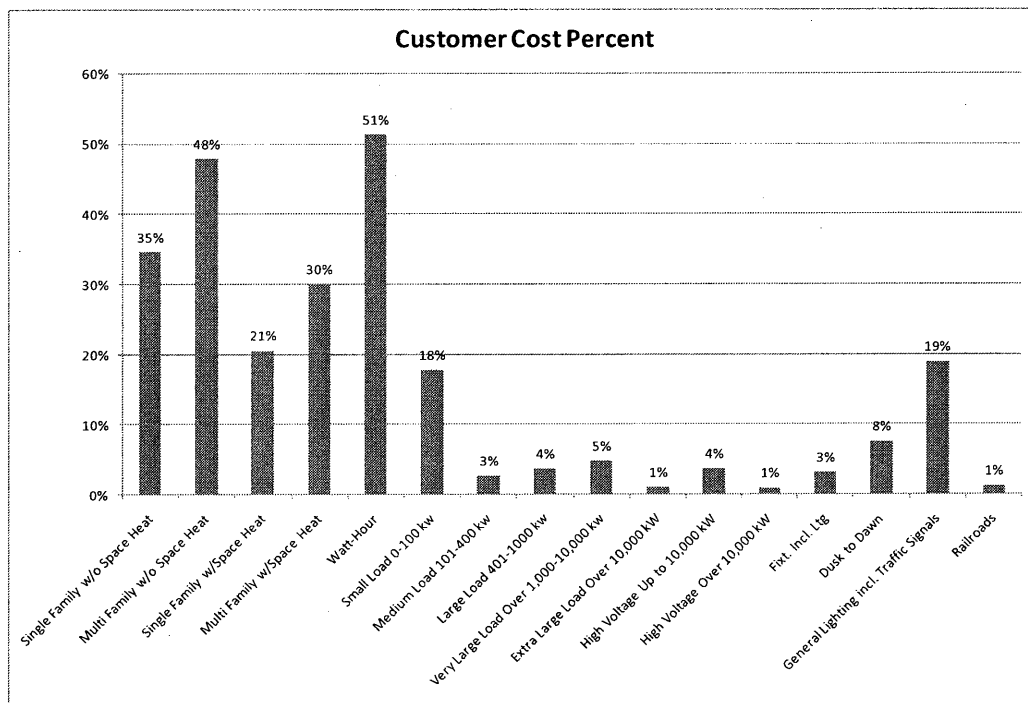


**Q. Comment on Mr. Heintz's statement that you "totally ignore the fact that the weight ComEd's ECOSS assigns to the railroad class is more than 1,200 times the weights assigned to the residential classes and the weight assigned to the Extra Large Load Over 10,000 kW class is more than 200 times the weights assigned to the residential classes." (ComEd Ex. 33.0, lines 184-88).**

**A.** In his zeal to defend ComEd's crude cost-of-service study, Mr. Heintz attempts to distort data. In fact, the allocation of customer costs I proposed in my direct testimony presents an entirely different picture. For example, customer costs are a very minor item for classes other than residential and small business classes. For the railroad class, customer costs are a mere 2% of revenues. This is yet another example of ComEd's creating a myth to avoid confronting reality.



The following chart sets forth the percentage of revenues that the customer charge represents for each of ComEd's customer classes. The chart confirms my argument that ComEd's customer charge proposals fall most heavily on the residential and small business classes.



\* \* \*

**Q. Does this conclude your rebuttal testimony for the City of Chicago?**

**A. Yes, it does.**